# CONTENTS


PART 1 FEBRUARY 1992

KAWAZOE, U., TOMLEY, F. M. and FRAZIER, J. A. Fractionation and antigenic characterization of organelles of *Eimeria tenella* sporozoites 1

NAKAMURA, T., KONISHI, T., KAWAGUCHI, H. and IMOSE, J. Estimation of relative fecundity in *Eimeria tenella* strains by a mixed infection method 11

ROBERTS, C. W. and ALEXANDER, J. Studies on a murine model of congenital toxoplasmosis: vertical disease transmission only occurs in BALB/c mice infected for the first time during pregnancy 19

WEE, J. L. K., HO, L. C., YAP, E. H. and SINGH, M. A monoclonal-based IgM capture ELISA for detection of antibodies to 22 and 41 kDa membrane antigens of *Toxoplasma gondii* 25

AMEN, R. I., BAGGEN, J. M. C., BEZEMER, P. D. and DE JONG-BRINK, M. Modulation of the activity of the internal defence system of the pond snail *Lymnaea stagnalis* by the avian schistosome *Trichobilharzia ocellata* 33

DANIEL, B. E., PRESTON, T. M. and SOUTHGATE, V. R. The *in vitro* transformation of the miracidium to the mother sporocyst of *Schistosoma margrebowiei*: changes in the parasite surface and implications for interactions with snail plasma factors 41

IMBERT-ESTABLET, D. and COMBES, C. Relocation of *Schistosoma mansoni* in the lungs and resistance to reinfection in *Rattus rattus* 51

BLAIR, K. L., BENNETT, J. L. and PAX, R. A. Praziquantel: physiological evidence for its site(s) of action in magnesium-paralysed *Schistosoma mansoni* 59

ARTAMA, W. T., AGEY, M. W. and DONELSON, J. E. DNA comparisons of *Trypanosoma evansi* (Indonesia) and *Trypanosoma brucei* spp. 67

STEVENS, J. R. and GODFREY, D. G. Numerical taxonomy of *Trypanozoon* based on polymorphisms in a reduced range of enzymes 75

PLUMAS-MARTY, B., VERWAERDE, C., LOYENS, M., VELGE, P., TAIBI, A., CESBRON, M.-F., CAPRON, A. and OUAISSI, M. A. *Trypanosoma cruzi* glutathione-binding proteins: immunogenicity during human and experimental Chagas' disease 87

CIBULSKIS, R. E. Genetic variation in *Trypanosoma brucei* and the epidemiology of sleeping sickness in the Lambwe Valley, Kenya 99

MÜLLER, N., HEMPHILL, A., IMBODEN, M., DUVALLET, G. DWINGER, R. H. and SEEBECK, T. Identification and characterization of two repetitive non-variable antigens from African trypanosomes which are recognized early during infection 111

KIRK, R. S. and LEWIS, J. W. The laboratory maintenance of *Sanguinicola inermis* Plehn, 1905 (Digenea: Sanguinicolidae) 121

LEDUCQ, R. and GABRION, C. Developmental changes of *Echinococcus multilocularis* metacestodes revealed by tegumental ultrastructure and lectin-binding sites 129

STOITSOVA, S. R., GORCHILOVA, L. N. and DANĚK, J. Effects of three anthelmintics on the tegument of *Hymenolepis fraterna* (Cestoda) 143

HASWELL-ELKINS, M. R., LEONARD, H., KENNEDY, M. W., ELKINS, D. B. and MAIZELS, R. M. Immunoepidemiology of *Ascaris lumbricoides*: relationships between antibody specificities, exposure and infection in a human community 153

ANDERSEN, K. I. and VALTONEN, E. T. Segregation and co-occurrence of larval cestodes in freshwater fishes in the Bothnian Bay, Finland 161

SHARP, G. J. E., PIKE, A. W. and SECOMBES, C. J. Sequential development of the immune response in rainbow trout [*Onchorhynchus mykiss* (Walbaum, 1972)] to experimental plerocercoid infections of *Diphyllobothrium dendriticum* (Nitzsch, 1824) 169

GOATER, C. P. Experimental population dynamics of *Rhabdias bufonis* (Nematoda) in toads (*Bufo bufo*): density-dependence in the primary infection 179

KENNEDY, C. R. and BUSH, A. O. Species richness in helminth communities: the importance of multiple congeners 189

PART 2 APRIL 1992

ADLER, F. R. and KRETZSCHMAR, M. Aggregation and stability in parasite–host models 199

SUGIMOTO, C., KAWAZU, S., SATO, M., KAMIO, T. and FUJISAKI, K. Preliminary biochemical characterization of 'veil' structure purified from *Theileria sergenti*-, *T. buffeli*- and *T. orientalis*-infected bovine erythrocytes 207

BISHOP, R., SOHANPAL, B., KARIUKI, D. P., YOUNG, A. S., NENE, V., BAYLIS, H., ALLSOPP, B. A., SPOONER, P. R., DOLAN, T. T. and MORZARIA, S. P. Detection of a carrier state in *Theileria parva*-infected cattle by the polymerase chain reaction 215

LYIMO, E. O. and KOELLA, J. C. Relationship between body size of adult *Anopheles gambiae s.l.* and infection with the malaria parasite *Plasmodium falciparum* 233

CRUZ-REYES, J. A., SPICE, W. M., REHMAN, T., GISBORNE, E. and ACKERS, J. P. Ribosomal DNA sequences in the differentiation of pathogenic and non-pathogenic isolates of *Entamoeba histolytica* 239

TREES, A. J., WAHL, G., KLÄGER, S. and RENZ, A. Age-related differences in parasitosis may indicate acquired immunity against microfilariae in cattle naturally infected with *Onchocerca ochengi* 247

WHITTINGTON, I. D. and KEARN, G. C. The eggs and oncomiracidia of *Encotyllabe* spp. and the relationship between encotyllabines and other capsalid monogeneans 253

KOSKIVAARA, M. and VALTONEN, E. T. *Dactylogyrus* (Monogenea) communities on the gills of roach in three lakes in Central Finland 263

KOSKIVAARA, M., VALTONEN, E. T. and VUORI, K.-M. Microhabitat distribution and coexistence of *Dactylogyrus* species (Monogenea) on the gills of roach 273

TOCQUE, K. and TINSLEY, R. C. Ingestion of host blood by the monogenean *Pseudodiplorchis americanus*: a quantitative analysis 283

THÉRON, A., POINTIER, J. P., MORAND, S., IMBERT-ESTABLET, D. and BOREL, G. Long-term dynamics of natural populations of *Schistosoma mansoni* among *Rattus rattus* in patchy environment 291

RATCLIFFE, E. C. and WILSON, R. A. The role of mononuclear-cell recruitment to the lungs in the development and expression of immunity to *Schistosoma mansoni* 299

SCHALLIG, H. D. F. H., SASSEN, M. J. M. and DE JONG-BRINK, M. *In vitro* release of the anti-gonadotrophic hormone, schistosomin, from the central nervous system of *Lymnaea stagnalis* is induced with a methanolic extract of cercariae of *Trichobilharzia ocellata* 309

HEALY, N., GREIG, S., ENAHORO, H., ROBERTS, H., DRAKE, L., SHAW, E. and ASHALL, F. Detection of peptidases of *Trypanosoma cruzi* epimastigotes using chromogenic and fluorogenic substrates 315

KORBSRISATE, S., MONGKOLSUK, S., HAYNES, J. R., WONG, Q. and SIRISINHA, S. Cloning and characterization of ribosomal RNA genes from *Opisthorchis viverrini* 323

SUKHDEO, M. V. K. and KERR, M. S. Behavioural adaptation of the tapeworm *Hymenolepis diminuta* to its environment 331

WARD, S. M., ALLEN, J. M. and MCKERR, G. Physiology of obliquely striated muscle fibres within *Grillotia erinaceus* metacestodes (Cestoda: Trypanorhyncha) 337

ALLAN, J. C., CRAIG, P. S., GARCIA NOVAL, J., MENCOS, F., LIU, D., WANG, Y., WEN, H., ZHOU, P., STRINGER, R., ROGAN, M. and ZEYHLE, E. Coproantigen detection for immunodiagnosis of echinococcosis and taeniasis in dogs and humans 347

LIU, D., LIGHTOWLERS, M. W. and RICKARD, M. D. Evaluation of a monoclonal antibody-based competition ELISA for the diagnosis of human hydatidosis 357

ISHIWATA, K., OKU, Y., ITO, M. and KAMIYA, M. Responses to larval *Taenia taeniaeformis* in mice with severe combined immunodeficiency (*scid*) 363

CHAN, L., KAN, S. P. and BUNDY, D. A. P. The effect of repeated chemotherapy on age-related predisposition to *Ascaris lumbricoides* and *Trichuris trichiura* 371

PART 3 JUNE 1992

HOPPE, H. C., COETZEE, J. and LOUW, A. I. *Plasmodium falciparum*: isolation of intact and erythrocyte-free trophozoites from sorbitol lysates 379

READ, A. F., NARARA, A., NEE, S., KEYMER, A. E. and DAY, K. Gametocyte sex ratios as indirect measures of outcrossing rates in malaria 387

UPCROFT, J. A., HEALEY, A., MURRAY, D. G., BOREHAM, P. F. L. and UPCROFT, P. A gene associated with cell division and drug resistance in *Giardia duodenalis* 397

BUMSTEAD, N. and MILLARD, B. J. Variation in susceptibility of inbred lines of chickens to seven species of *Eimeria* 407

DENHAM, D. A., MEDEIROS, F., BALDWIN, C., KUMAR, H., MIDWINTER, I. C. T., BIRCH, D. W. and SMAIL, A. Repeated infection of cats with *Brugia pahangi*: parasitological observations 415

WILSON, S. M., MCNERNEY, R., MORENO, M. B., FRAME, I. and MILES, M. A. Adaptation of a radioactive *L. donovani* complex DNA probe to a chemiluminescent detection system gives enhanced sensitivity for diagnostic and epidemiological applications 421

KONISHI, E. and NAKAO, M. Naturally occurring immunoglobulin M antibodies: enhancement of phagocytic and microbicidal activities of human neutrophils against *Toxoplasma gondii* 427

NJAGI, E. N. M., BENDER, D. A. and OKELO, G. B. A. Tryptophan metabolism and vitamin $B_6$, nutritional status in patients with schistosomiasis mansoni and in infected mice 433

WOOLHOUSE, M. E. J. and CHANDIWANA, S. K. A further model for temporal patterns in the epidemiology of schistosome infections of snails 443

DE VLAS, S. J., GRYSEELS, B., VAN OORTMARSSEN, G. J., POLDERMAN, A. M. and HABBEMA, J. D. F. A model for variations in single and repeated egg counts in *Schistosoma mansoni* infections 451

SUTHERLAND, I. A., MOUNSEY, A. and HOLMES, P. H. Transport of isometamidium (Samorin) by drug-resistant and drug-sensitive *Trypanosoma congolense* 461

JONES, D. A. C., HENDERSON, R. J. and RILEY, J. Preliminary characterization of the lipid and protein components of the protective surface membranes of a pentastomid *Porocephalus crotali* 469

LEHMANN, T. Ectoparasite impacts on *Gerbillus andersoni allenbyi* under natural conditions 479

KEARN, G. C. and WHITTINGTON, I. D. Diversity of reproductive behaviour in platyhelminth parasites: insemination in some benedeniine (capsalid) monogeneans 489

ADAMSON, M. L. and NOBLE, S. Structure of the pinworm (Oxyurida: Nematoda) guild in the hindgut of the American cockroach, *Periplaneta americana* 497

DIX, I., BURNELL, A. M., GRIFFIN, C. T., JOYCE, S. A., NUGENT, M. J. and DOWNES, M. J. The identification of biological species in the genus *Heterorhabditis* (Nematoda: Heterorhabditidae) by cross-breeding second-generation amphimictic adults 509

TANGUAY, G. V. and SCOTT, M. E. Factors generating aggregation of *Heligmosomoides polygyrus* (Nematoda) in laboratory mice 519

WASTLING, J. M., MACKENZIE, K. and CHAPPELL, L. H. Effects of cyclosporin A on the morphology and tegumentary ultrastructure of *Hymenolepis microstoma in vivo* 531

NOKES, C., GRANTHAM-MCGREGOR, S. M., SAWYER, A. W., COOPER, E. S., ROBINSON, B. A. and BUNDY, D. A. P. Moderate to heavy infections of *Trichuris trichiura* affect cognitive function in Jamaican school children 539

MARTIN, R. J. and KUSEL, J. R. On the distribution of a fluorescent ivermectin probe (4″5,7 dimethyl-bodipy proprionylivermectin) in *Ascaris* membranes 549